

SBA SHIPYARDS, INC. PROBABLE SOURCES OF CONTAMINANTS CURRENTLY PRESENT IN TANKS AND PITS			
COMPANY	DATE(S)*	VESSEL NUMBER	PREVIOUS 3 CARGOES
Allied Towing	8/21/85	Kelly	Asphalt, Bunker C
	4/21/86	Kelly	Asphalt
	8/1/86	1-50	Caustic Soda

\* - Based on date from Marine Chemist's Gas Free Certificate

MARINE CHEMIST CERTIFICATE

SERIAL NO. B135146

SBA SHIPYARD

W O - 911

8 21/85

Survey Requested by

KELLY

Vessel Owner or Agent

TANK BARGE

Date

SBA MERMENTAU S Y

Vessel

ASPHALT, BUNKER C

Type of Vessel

JW COMB

Specific Location of Vessel

4:00 PM

Last Three (3) Cargoes

Test Method

Time Survey Completed

CARGO TANKS 1-5-----less than 5% LEL, some residue, secured

FORWARD RAKE P&S-----0% LEL, some Eureka type coating, SAFE FOR  
WORKERS, WITH VENTILATION

AFTER RAKE, PORT SIDE-----0% LEL, some Compound H type coating, SAFE FOR  
WORKERS, WITH VENTILATION

AFTER RAKE, STBD SIDE-----0% LEL, oil film over water, SAFE FOR WORKERS,  
WITH VENTILATION.

AFTER PUMP ROOM-----0% LEL, oil in bilges, SAFE FOR WORKERS, WITH  
VENTILATION

WING DOUBLE BOTTOMS 1 P&S, 5S-----SAFE FOR WORKERS, SAFE FOR HOT WORK WITH AIR  
VENTILATION

WING DOUBLE BOTTOMS 2P&S, 3P&S, 4P&S, 5P, 6P&S-----0% LEL, some product residue, put water over  
w product, then SAFE FOR HOT WORK on outside  
bottom to weld nipple to drill hole

SAFE FOR HOT WORK ON MAIN DECK, NOT AGAINST CARGO TANKS

In the event of any physical or atmospheric changes adversely affecting the STANDARD SAFETY DESIGNATIONS assigned to any of the above spaces, or if in any doubt, immediately stop all work and contact the undersigned Marine Chemist.

**QUALIFICATIONS:** Transfer of ballast or manipulation of valves or closure equipment tending to alter conditions in pipe lines, tanks or compartments subject to gas accumulation, unless specifically approved in this Certificate, requires inspection and endorsement or reissue of Certificate for the spaces so affected. All lines, vents, heating coils, valves, and similarly enclosed appurtenances shall be considered "not safe" unless otherwise specifically designated.

**STANDARD SAFETY DESIGNATIONS** (partial list, paraphrased from NFPA 306-1980, Subsections 1-6.1 through 1-6.4, and Subsection 5-3.2).

**SAFE FOR WORKERS:** Means that in the compartment or space so designated: (a) the oxygen content of the atmosphere is at least 19.5 percent by volume; and that, (b) toxic materials in the atmosphere are within permissible concentrations; and that, (c) the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Marine Chemist's Certificate.

**NOT SAFE FOR WORKERS:** Means that in the compartment or space so designated, the requirements of Safe for Workers has not been met.

**SAFE FOR HOT WORK:** Means that in the compartment so designated: (a) oxygen content of the atmosphere is at least 19.5 percent by volume, with the exception of inerted spaces or where external hot work is to be performed; and that, (b) the concentration of flammable materials in the atmosphere is below 10 percent of the lower flammable limit; and that, (c) the residues are not capable of producing a higher concentration than permitted by (b) above under existing atmospheric conditions in the presence of fire, and while maintained as directed on the Marine Chemist's Certificate; and further, that, (d) all adjacent spaces containing or having contained flammable or combustible materials have been cleaned sufficiently to prevent the spread of fire, or are satisfactorily inerted, or, in the case of fuel tanks or lube oil tanks or engine room or fire room bilges, have been treated in accordance with the Marine Chemist's requirements.

**NOT SAFE FOR HOT WORK:** Means that in the compartment so designated, the requirements of Safe for Hot Work have not been met.

**SAFE FOR REPAIR YARD ENTRY:** Means that the compartments and spaces of the flammable cryogenic liquid carrier so designated: (a) have been tested by sampling at remote sampling stations, and results indicate the atmosphere to be above 19.5 percent oxygen, and less than 10 percent of the lower flammable limit, or (b) are inerted.

**CHEMIST'S ENDORSEMENT.** This is to certify that I have personally determined that all spaces in the foregoing list are in accordance with NFPA 306-1980 Control of Gas Hazards on Vessels and have found the condition of each to be in accordance with its assigned designation.

"The undersigned acknowledges receipt of this Certificate under Section 2-3 of NFPA 306-1980 and understands conditions and limitations under which it was issued."

This Certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

Signed W. B. Hataway  
Name

Company

Date

Signed W. B. Hataway  
Marine Chemist

Certificate No.

NOTE: THIS CERTIFICATE IS VALID ONLY ON MARINE VESSELS

J.O. # 964

SERIAL NO. D 18633

Survey Requested by SEA S.V. Vessel Owner or Agent ALLIED TOWING Date 4-21-86  
Vessel KELLY Type of Vessel TANK BARGE Specific Location of Vessel SEA/ENNING  
Last Three (3) Cargoes ASPHALT Test Method OC/LEL/VISUAL Time Survey Completed 9:45 PM

BOW RAKE VOIDS P/S SAFE FOR WORKERS  
STERN RAKE VOIDS P/S COATED WITH EUREKA PRESERVATIVE

No. 1 DOUBLE BOTTOM (STBD) SAFE FOR WORKERS  
SAFE FOR HOTWORK

DOUBLE BOTTOMS  
No. 1 P/2 P/3 P/4 P/5 P/6 P/7 - SAFE FOR WORKERS  
CARGO TANKS No. 1-2-3-4-5 ASPHALT BOTTOMS  
SAFE FOR HOTWORK WITH  
PUMP ROOM AREA CLEANED OR COVERED  
WITH FIRE RETARDANT  
MATERIAL IN WAY OF HOTWORK  
FIRE WATCH WITH CHARGE  
FIRE HOSE REQD. ON STAND-BY

VENTS TO CARGO TANKS - SAFE FOR HOTWORK WITH PLUG IN  
OPEN END OF VENT PIPE

PORTABLE AIR VENTILATION REQD. IN WORK TANK.

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**CHEMIST'S ENDORSEMENT.** This is to certify that I have personally determined that all spaces in the foregoing list are in accordance with NFPA 306 Control of Gas Hazards on Vessels and have found the condition of each to be in accordance with its assigned designation.

"The undersigned acknowledges receipt of this Certificate under Section 2-3 of NFPA 306 and understands conditions and limitations under which it was issued."

This Certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

Signed

Name

Company

Date

Signed

Marine Chemist

Certificate No.

NOTE THIS CERTIFICATE IS VALID ONLY ON MARINE VESSELS

W.O.# 978

SERIAL NO. D 18787

Survey Requested by  
SBA S.V.

ALLIED  
Vessel Owner or Agent

8-1-86  
Date

I-50  
Vessel

TANK BARGE  
Type of Vessel

SBA/Hennings  
Specific Location of Vessel

CAUSTIC SODA  
Last Three (3) Cargoes

O<sub>2</sub> / LEL / VISUAL  
Test Method

3:00 PM  
Time Survey Completed

BOW RAKE VOID  
VOID AFT OF BOW RAKE  
CO<sub>2</sub> COMP. (FORWARD)

STERN RAKE VOID  
CO<sub>2</sub> COMP. (AFT)

SAFE FOR WORKERS  
SAFE FOR HOTWORK

PORTABLE AIR VENTILATION REQD. IN WORK TANK

VOID, FORWARD OF STERN RAKE - 0% LEL / 20.8% OXYGEN  
CHECKED THREE SOUNDING TUBES  
UNABLE TO OPEN HATCH

CARGO TANKS #1-2-3-4 P/S  
MID TRANSVERSE COFFERDAMS P/S

SAFE FOR WORKERS  
SAFE FOR HOTWORK

WING VOID D.B. 1"

1-2-3-4-5 P/S - 0% LEL / 20.8% OXYGEN

NOT SAFE FOR WORKERS - SOME CAUSTIC SODA

THIS VESSEL IS SAFE FOR HOTWORK ON EXTERNAL SHELL AND ON OPEN DECK.

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Signed

Name

Company

Date

Signed

Marine Chemist

Certificate No.

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